



Patent
Attorney's Docket No. RIC95042

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of)	Mail Stop APPEAL BRIEF - PATENTS
Lisheng HUANG)	
Application No.: 08/575,433)	Group Art Unit: 2666
Filed: December 20, 1995)	Examiner: P. Tran
For: HYBRID PACKET-SWITCHED)	
AND CIRCUIT-SWITCHED)	
TELEPHONY SYSTEM)	

TRANSMITTAL FOR APPEAL BRIEF

U.S. Patent and Trademark Office
Customer Service Window, Mail Stop **Appeal Brief - Patents**
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Sir:

Transmitted herewith is an Appeal Brief in support of the Notice of Appeal filed
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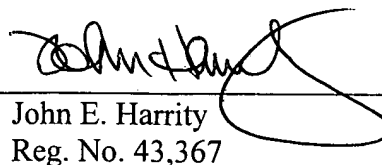
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Respectfully submitted,

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Date: November 2, 2005



PATENT
Docket No. **RIC95042**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

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Lisheng HUANG)
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APPEAL BRIEF

This Appeal Brief is submitted in response to the final Office Action, dated August 8, 2005, and in support of the Notice of Appeal, filed September 7, 2005.

I. **REAL PARTY IN INTEREST**

The real party in interest in this appeal is MCI, Inc.

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II. RELATED APPEALS, INTERFERENCES, AND JUDICIAL PROCEEDINGS

Appellant is unaware of any related appeals, interferences or judicial proceedings.

III. STATUS OF CLAIMS

Claims 1, 4-7, 9-11, 14-17, 19, 20, 22, and 26-39 are pending in this application.

Claims 1, 4-7, 9-11, 14-17, 19, 20, 22, 26-28, 31-33, and 35-38 were finally rejected in the Office Action, dated August 8, 2005, and are the subject of the present appeal. These claims are reproduced in the Claim Appendix of this Appeal Brief.

IV. STATUS OF AMENDMENTS

No Amendment was filed subsequent to the final Office Action, dated August 8, 2005.

V. SUMMARY OF CLAIMED SUBJECT MATTER

In the paragraphs that follow, each of the independent claims that is involved in this appeal and each dependent claim that is argued separately will be recited followed in parenthesis by examples of where support can be found in the specification and drawings.

Claim 1 recites a telecommunications system comprising an originating circuit-switched network for providing originating signals in response to voice input (e.g., 2, Fig. 1; pg. 12, lines 11), an originating gateway computer for converting said originating signals into digital data packets (e.g., 3, Fig. 1; pg. 13, lines 19-26, and pg. 14, lines 7-11), a terminating gateway computer that accepts out of band signaling and converts said digital data packets into terminating signals (e.g., 6, Fig. 1; pg. 13, line 26, to pg. 14, line 14), a terminating circuit-

switched network for providing voice output in response to said terminating signals (e.g., 7, Fig. 1; pg. 14, lines 5-11), and a packet-switched network for transmitting said digital data packets from said originating gateway computer to said terminating gateway computer (e.g., 5, Fig. 1; pg. 13, lines 20-26), at least one of said originating gateway computer or said terminating gateway computer comprising a component for routing said digital data packets through said packet-switched network from said originating gateway computer to said terminating gateway computer (e.g., 39, Fig. 3b; pg. 8, lines 1-5); wherein said terminating circuit-switched network is capable of providing first return signals to said terminating gateway computer in response to return voice input (e.g., pg. 13, lines 19-26), wherein said terminating gateway computer comprises a component for converting said first return signals into return packets of return digital data (e.g., 36, Fig. 3b; pg. 8, lines 9-15), wherein at least one of said originating gateway computer or said terminating gateway computer comprises a component for routing said return packets through said packet-switched network from said terminating gateway computer to said originating gateway computer (e.g., 39, Fig. 3b; pg. 8, lines 1-5, and pg. 13, lines 20-26), and wherein said originating gateway computer comprises a component for converting said return packets into second return signals (e.g., 36, Fig. 3b; pg. 8, lines 9-15, and pg. 13, line 26, to pg. 14, line 11).

Claim 5 recites that the terminating gateway computer further comprises a component for rearranging said stored digital packets to maintain a proper packet order (e.g., pg. 13, line 26, to pg. 14, line 11).

Claim 6 recites that the routing component provides the routing in response to dialed digits (e.g., pg. 12, lines 1-11).

Claim 7 recites that the routing component provides the routing in response to spoken

digits (e.g., pg. 12, lines 1-11).

Claim 11 recites a telecommunications system comprising an originating gateway computer for providing digital packets corresponding to originating signals produced in response to voice input (e.g., 3, Fig. 1; pg. 13, lines 19-26, and pg. 14, lines 7-11), a gateway computer that accepts out of band signaling and converts said digital packets into terminating signals (e.g., 6, Fig. 1; pg. 13, line 26, to pg. 14, line 14), a circuit-switched network for providing voice output in response to said terminating signals (e.g., 7, Fig. 1; pg. 14, lines 5-11), and a packet-switched network for transmitting said digital packets from said originating gateway computer to said gateway computer (e.g., 5, Fig. 1; pg. 13, lines 20-26), at least one of said originating gateway computer or said gateway computer comprising a component for routing said digital packets through said packet-switched network from said originating gateway computer to said gateway computer (e.g., 39, Fig. 3b; pg. 8, lines 1-5); wherein said circuit-switched network is capable of providing first return signals to said gateway computer (e.g., pg. 13, lines 19-26), wherein said gateway computer comprises a component for converting said first return signals into packets of return digital data (e.g., 36, Fig. 3b; pg. 8, lines 9-15), wherein at least one of said originating gateway computer or said gateway computer comprises a component for routing said return packets through said packet-switched network from said gateway computer to said originating gateway computer (e.g., 39, Fig. 3b; pg. 8, lines 1-5, and pg. 13, lines 20-26), and wherein said originating gateway computer comprises a component for converting said return packets into second return signals (e.g., 36, Fig. 3b; pg. 8, lines 9-15, and pg. 13, line 26, to pg. 14, line 11).

Claim 17 recites that the routing component provides said routing in response to a typed

input from a computer keyboard (e.g., pg. 9, line 8, to pg. 10, line 5).

Claim 22 recites telecommunications method comprising providing originating digital packets for transmission from an originating gateway computer, said originating digital packets corresponding to originating signals produced in response to originating voice input (e.g., 15, Fig. 5; pg. 13, lines 20-26, and pg. 14, lines 7-11); routing said originating digital packets from said originating gateway computer to a gateway computer, that accepts out of band signaling, through a packet-switched network via an originating routing component in at least one of said originating gateway computer or said gateway computer (e.g., 15, Fig. 5; pg. 13, lines 20-26, and pg. 14, lines 7-14); converting said originating digital packets into terminating signals for transmission from said gateway computer (e.g., 16, Fig. 5; pg. 13, line 26, to pg. 14, line 11); transmitting said terminating signals through a circuit-switched network for providing terminating voice output in response to said terminating signals (e.g., 16, Fig. 5; pg. 13, line 26, to pg. 14, line 11); providing first return signals to said gateway computer in response to return voice input into said circuit-switched network (e.g., 17, Fig. 5; pg. 13, lines 20-26, and pg. 14, lines 7-11); converting said return signals into return digital packets of return digital data for transmission from said gateway computer (e.g., 17, Fig. 5; pg. 13, lines 20-26, and pg. 14, lines 7-11); routing said return digital packets through said packet-switched network from said gateway computer to said originating gateway computer using said originating routing component or another routing component in said originating gateway computer or said gateway computer (e.g., 17, Fig. 5; pg. 13, lines 20-26, and pg. 14, lines 7-11); and converting said return digital packets into second return signals (e.g., 17, Fig. 5; pg. 13, line 26, to pg. 14, line 11).

Claim 26 recites that at least one of said routing components comprises an address

resolution logic and a network routing database implemented with a central processing unit (e.g., 45 and 46, Fig. 3b; pg. 8, lines 1-5).

Claim 28 recites that the originating gateway computer includes a component for providing out of band signalling between said originating gateway computer and said originating circuit-switched network (e.g., pg. 14, lines 12-14).

Claim 36 recites that the causing the terminating gateway computer to transmit to the originating gateway computer via said packet-switched network a state change caused by the callee's answering said call (e.g., pg. 13, lines 17-19).

Claim 37 recites that a caller is associated with at least one dedicated address (e.g., pg. 15, line 20, to pg. 16, line 1), and wherein said method further comprises routing a call in accordance with a routing configuration from a telephone at said dedicated address to said originating gateway computer (e.g., pg. 16, lines 1-4), passing said originating signals, the caller's address and a destination address to the originating gateway computer in accordance with said routing configuration (e.g., pg. 16, lines 1-4), authorizing a call by checking account information of the caller through an internal data base of the originating gateway computer (e.g., pg. 16, lines 4-8), resolving a routing to said gateway computer using the destination address (e.g., pg. 16, lines 4-8), and causing the originating gateway computer to send a control message to the gateway computer along with said dedicated address and said destination address (e.g., pg. 16, lines 8-15).

Claim 38 recites a method for establishing a call connection, the method comprising receiving, at a first gateway device (e.g., 3, Fig. 1), a destination address of a called device (e.g., 8, Fig. 1) from a calling device (e.g., 1, Fig. 1) over a first circuit-switched network (e.g., 2, Fig.

1; pg. 12, lines 1-11); transmitting, in response to receiving the destination address, a connection request from the first gateway device to a second gateway device (e.g., 6, Fig. 1) over a packet-switched network (e.g., 5, Fig. 1; pg. 12, line 26, to pg. 13, line 7), at least one of the first gateway device or the second gateway device accepting out of band signaling (e.g., pg. 14, lines 12-14); connecting, via the second gateway device, to the called device through a second circuit-switched network using the destination address (e.g., pg. 14, lines 7-9); and establishing a call connection between the calling device and the called device through the first circuit-switched network, the packet-switched network, and the second circuit-switched network in response to the connecting (e.g., pg. 14, lines 9-19).

VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

A. Claims 1, 4-7, 9-11, 14-17, 19, 20, 22, 26-28, 31-33, and 35-38 stand rejected under 35 U.S.C. § 102(e) as anticipated by Turock (U.S. Patent No. 6,243,373).

VII. ARGUMENTS

A. **The rejection under 35 U.S.C. § 102(e) based on Turock (U.S. Patent No. 6,243,373) should be reversed.**

The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention always rests upon the Examiner. In re Oetiker, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). A proper rejection under 35 U.S.C. § 102 requires that a single reference teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present. Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 2 USPQ2d 1051 (Fed. Cir. 1987).

1. Claims 1, 4, 9, 11, 14, 16, 19, 22, 27, 31, 33, and 35.

Independent claim 1 is directed to a telecommunications system including an originating circuit-switched network for providing originating signals in response to voice input; an originating gateway computer for converting the originating signals into digital data packets; a terminating gateway computer that accepts out of band signaling and converts the digital data packets into terminating signals; a terminating circuit-switched network for providing voice output in response to the terminating signals; and a packet-switched network for transmitting the digital data packets from the originating gateway computer to the terminating gateway computer.

At least one of the originating gateway computer or the terminating gateway computer comprises a component for routing the digital data packets through the packet-switched network from the originating gateway computer to the terminating gateway computer. The terminating circuit-switched network is capable of providing first return signals to the terminating gateway computer in response to return voice input. The terminating gateway computer comprises a component for converting the first return signals into return packets of return digital data. At least one of the originating gateway computer or the terminating gateway computer comprises a component for routing the return packets through the packet-switched network from the terminating gateway computer to the originating gateway computer. The originating gateway computer comprises a component for converting the return packets into second return signals. Turock does not disclose or suggest this combination of features.

For example, Turock does not disclose or suggest a terminating gateway computer that accepts out of band signaling and converts the digital data packets from the originating gateway computer into terminating signals. The Examiner relies on block 508 of Fig. 5, col. 2, lines 9-12,

col. 6, lines 44-55, and col. 8, lines 57-60, of Turock for allegedly disclosing the terminating gateway computer (final Office Action, page 2). Appellant submits that these sections of Turock do not disclose, or even suggest, the recited terminating gateway computer.

Block 508 in Turock's Fig. 5 corresponds to an Internet Call Manager. Turock discloses that Internet Call Manager 508 is used to process incoming calls from the Internet (col. 8, lines 42-46). Turock in no way discloses or suggests that Internet Call Manager 508 accepts out of band signaling, as required by claim 1.

At col. 2, lines 9-14, Turock discloses:

The transmission of digital signals over the T1 carrier may be accomplished using time division multiplexing (TDM) wherein a high bandwidth communications link, such as a 1.544 Mbit/S T1 carrier, is divided into a number of lower bandwidth communication channels, such as 64 Kbit/S channels.

This section of Turock merely describes the transmission of digital signals over a T1 carrier.

This section of Turock in no way discloses or suggests a terminating gateway computer that accepts out of band signaling and converts the digital data packets from the originating gateway computer into terminating signals, as required by claim 1. Instead, this section of Turock, which corresponds to Turock's Background of the Invention section, describes the transmission of digital signals between central offices using a T1 carrier.

Moreover, as set forth above, the Examiner alleges that Turock's Internet Call Manager 508 is equivalent to the terminating gateway computer recited in claim 1 (final Office Action, pg. 3). However, the above section of Turock, which corresponds to Turock's Background of the Invention section, does not mention Internet Call Manager 508. Therefore, even if this section of Turock could reasonably be construed to disclose out of band signaling, this section of Turock in no way discloses or suggests that Turock's Internet Call Manager 508, which the Examiner

alleges corresponds to the recited terminating gateway computer, accepts out of band signaling.

At col. 6, lines 44-55, Turock discloses:

Specialized computer ITS node 206 prompts the user at the calling station 202 to provide the telephone number of the desired or called party 204. Based on the telephone number of the called party 204, specialized computer ITS node 206 provides a communication link to the called party 204. This is accomplished by the specialized computer ITS node 206 initiating a series of signalling messages over the Global Internet 214 using the TCP/IP protocol. While the specific embodiment of the present invention shown in FIG. 2 and discussed herein is described as using the Internet, it should be understood that the present invention may be used with any computer network in general.

This section of Turock discloses that specialized computer ITS node 206 provides a communication link over Internet 214 by initiating a series of signaling messages. This section of Turock in no way discloses or suggests a terminating gateway computer that accepts out of band signaling and converts the digital data packets from the originating gateway computer into terminating signals, as required by claim 1. Moreover, this section of Turock does not mention Internet Call Manager 508, which the Examiner alleges corresponds to the recited terminating gateway. The above section of Turock does not disclose or suggest Internet Call Manager 508 or any other device accepting out of band signaling and converting the digital data packets from the originating gateway computer into terminating signals, as required by claim 1.

At col. 8, lines 57-60, Turock discloses:

The ICM utilizes the digital signal processing (DSP) of the Voice Resources module to sample the incoming voice data stream and convert it to messages or packets which are then transmitted over the Internet.

This section of Turock discloses the conversion of an incoming voice data stream to messages or packets for transmission over the Internet. This section of Turock in no way discloses or suggests a terminating gateway computer that accepts out of band signaling and converts the

digital data packets from the originating gateway computer into terminating signals, as required by claim 1. Moreover, this section of Turock does not mention Internet Call Manager 508, which the Examiner alleges corresponds to the recited terminating gateway. The above section of Turock does not disclose or suggest Internet Call Manager 508 or any other device accepting out of band signaling and converting the digital data packets from the originating gateway computer into terminating signals, as required by claim 1.

Further with respect to this feature, the Examiner provides a definition for "out-of-band signaling" as a system that uses a separate communications channel or frequency outside the voice band for signaling (final Office Action, pg. 5). The Examiner does not provide any indication from where this definition of "out-of-band signaling" has been obtained.

Nonetheless, with this definition in mind, the Examiner alleges that "Turock teaches the receiving out-of-band signaling at block 216 in Fig. 2 such as the T1 using the TDM to transmit (col. 6, lines 48-51, the bridge paragraph between col. 6-7). Turock uses the TDM to separate communications channel, therefore Turock teaches the system transmits out-of-band signaling" (final Office Action, pg. 5). Appellant respectfully disagrees with the Examiner's interpretation of Turock.

Block 216 in Fig. 2 of Turock corresponds to terminating specialized computer ITS node. Turock discloses that terminating specialized computer ITS node 216 receives signaling messages from Internet 214 and outdials a call through central office 218 (col. 7, lines 1-12). Turock in no way discloses or suggests that terminating specialized computer ITS node 216 accepts out of band signaling, as required by claim 1.

At col. 6, line 48, to col. 7, line 10, Turock discloses:

This is accomplished by the specialized computer ITS node 206 initiating a series of signalling messages over the Global Internet 214 using the TCP/IP protocol. While the specific embodiment of the present invention shown in FIG. 2 and discussed herein is described as using the Internet, it should be understood that the present invention may be used with any computer network in general. Additionally, specialized computer ITS node 206 can use either TCP/IP or UDP/IP to communicate voice data over the Internet. An advantage to using UDP/IP is that this protocol requires less transmission overhead resulting in faster data transmission. Due to the real-time nature of a telephone call, it is not worthwhile to attempt to redeliver messages initially returned as undeliverable. This is because subsequent messages continually flow and need to be delivered in order to maintain the real-time aspect and flow of the call. It is practically of no use to deliver message portions shifted in time.

The signalling messages are carried by the Internet 214 and delivered to a terminating specialized computer ITS node 216 at a remote access port. Terminating specialized computer ITS node 216 is identical to specialized computer 206, also referred to as the originating specialized computer ITS node, except that the originating specialized computer ITS node 206 is used to transmit a call, while the terminating specialized computer ITS node 216 is used to receive a call. Both originating and terminating specialized computers ITS node 206 and 216, respectively, are equipped with transmission circuits and receiving circuits and are capable of handling calls in either direction.

This section of Turock discloses that specialized computer ITS node 206 initiates a series of messages over Internet 214, which are delivered to terminating specialized computer ITS node 216. Contrary to the Examiner's allegation, this section of Turock does not disclose or suggest that terminating specialized computer ITS node 216 accepts out of band signaling and converts the digital data packets from the originating gateway computer into terminating signals, as required by claim 1. Moreover, this section of Turock in no way discloses or suggests that terminating specialized computer ITS node 216 uses TDM to, as alleged by the Examiner, "separate communications channel."

The Examiner has not pointed to any section of Turock that discloses or suggests that terminating specialized computer ITS node 216 (or any other device) accepts out of band

signaling and converts the digital data packets from the originating gateway computer into terminating signals, as required by claim 1.

For at least the foregoing reasons, Appellant submits that the rejection of claim 1 under 35 U.S.C. § 102(e) based on Turock is improper. Accordingly, Appellant requests that the rejection of claims 1, 4, 9, 11, 14, 16, 19, 22, 27, 31, 33, and 35 be reversed.

2. Claims 5 and 15.

Claim 5 depends indirectly from claim 1. Therefore, claim 5 is not anticipated by Turock for at least the reasons given above with respect to claim 1. Moreover, claim 5 recites an additional feature not disclosed or suggested by Turock.

Claim 5 recites that the terminating gateway computer further comprises a component for rearranging the stored digital packets to maintain a proper packet order. With respect to this feature, the Examiner alleges that Turock discloses "rearranging for a proper packet order (e.g. calls is process in order)" (final Office Action, pg. 4). The Examiner does not point to any section of Turock for allegedly disclosing this feature. Accordingly, a proper case of anticipation has not been established with respect to claim 5.

Nonetheless, Appellant submits that Turock in no way discloses or suggests that terminating specialized computer ITS node 216 (or any other device) rearranges stored digital packets to maintain a proper packet order, as required by claim 5.

For at least these additional reasons, Appellant submits that the rejection of claim 5 under 35 U.S.C. § 102(e) based on Turock is improper. Accordingly, Appellant requests that the rejection of claims 5 and 15 be reversed.

3. Claim 6.

Claim 6 depends from claim 1. Therefore, claim 6 is not anticipated by Turock for at least the reasons given above with respect to claim 1. Moreover, claim 6 recites an additional feature not disclosed or suggested by Turock.

Claim 6 recites that the routing component provides the routing in response to dialed digits. The Examiner does not address this feature in the final Office Action. Accordingly, a proper case of anticipation has not been established with respect to claim 6.

Nonetheless, Appellant submits that Turock in no way discloses or suggests a component for routing return packets through a packet-switched network from a terminating gateway computer to an originating gateway computer in response to dialed digits, as required by claim 6.

For at least these additional reasons, Appellant submits that the rejection of claim 6 under 35 U.S.C. § 102(e) based on Turock is improper. Accordingly, Appellant requests that the rejection be reversed.

4. Claim 7.

Claim 7 depends from claim 1. Therefore, claim 7 is not anticipated by Turock for at least the reasons given above with respect to claim 1. Moreover, claim 7 recites an additional feature not disclosed or suggested by Turock.

Claim 7 recites that the routing component provides the routing in response to spoken digits. The Examiner does not address this feature in the final Office Action. Accordingly, a proper case of anticipation has not been established with respect to claim 7.

Nonetheless, Appellant submits that Turock in no way discloses or suggests a component for routing return packets through a packet-switched network from a terminating gateway computer to an originating gateway computer in response to spoken digits, as required by claim

7.

For at least these additional reasons, Appellant submits that the rejection of claim 7 under 35 U.S.C. § 102(e) based on Turock is improper. Accordingly, Appellant requests that the rejection be reversed.

5. Claims 10 and 20.

Claim 10 depends indirectly from claim 1. Therefore, claim 10 is not anticipated by Turock for at least the reasons given above with respect to claim 1. Moreover, claim 10 recites an additional feature not disclosed or suggested by Turock.

Claim 10 recites that the originating gateway computer further comprises a component for rearranging the stored digital packets to maintain a proper packet order. With respect to this feature, the Examiner alleges that Turock discloses "rearranging for a proper packet order (e.g. calls is process in order)" (final Office Action, pg. 4). The Examiner does not point to any section of Turock for allegedly disclosing this feature. Accordingly, a proper case of anticipation has not been established with respect to claim 10.

Nonetheless, Appellant submits that Turock in no way discloses or suggests that originating specialized computer ITS node 206, which the Examiner alleges corresponds to the recited originating gateway computer, (or any other device) rearranges stored digital packets to maintain a proper packet order, as required by claim 10.

For at least these additional reasons, Appellant submits that the rejection of claim 10 under 35 U.S.C. § 102(e) based on Turock is improper. Accordingly, Appellant requests that the rejection of claims 10 and 20 be reversed.

6. Claim 17.

Claim 17 depends from claim 11. Therefore, claim 17 is not anticipated by Turock for at least the reasons given above with respect to claim 11. Moreover, claim 17 recites an additional feature not disclosed or suggested by Turock.

Claim 17 recites that the routing component provides the routing in response to a typed input from a computer keyboard. The Examiner does not address this feature in the final Office Action. Accordingly, a proper case of anticipation has not been established with respect to claim 17.

Nonetheless, Appellant submits that Turock in no way discloses or suggests a component for routing return packets through a packet-switched network from a gateway computer to an originating gateway computer in response to typed input from a computer keyboard, as required by claim 17.

For at least these additional reasons, Appellant submits that the rejection of claim 17 under 35 U.S.C. § 102(e) based on Turock is improper. Accordingly, Appellant requests that the rejection be reversed.

7. Claims 26 and 32.

Claim 26 depends from claim 1. Therefore, claim 26 is not anticipated by Turock for at least the reasons given above with respect to claim 1. Moreover, claim 26 recites an additional feature not disclosed or suggested by Turock.

Claim 26 recites that at least one of the routing components comprises an address resolution logic and a network routing database implemented with a central processing unit. The Examiner relies on element 514 in Fig. 5 of Turock and col. 14, lines 39-58, of Turock for allegedly disclosing the above features of claim 26 (final Office Action, pg. 4). Appellant

respectfully disagrees with the Examiner's interpretation of Turock.

Element 514 of Turock corresponds to a least cost routing (LCR) module. Turock discloses that LCR module 514 uses a database to match a telephone number to an ITS node that can route the call (col. 9, lines 27-49). Contrary to the Examiner's allegation, Turock does not disclose or suggest that LCR module 514 is an address resolution logic and a network routing database implemented with a central processing unit, as required by claim 26.

At col. 14, lines 39-58, Turock discloses:

The detailed operation of the individual blocks of FIG. 5 will now be explained with reference to FIGS. 8 to 10. Referring now to FIG. 8, therein is shown a flowchart of the operation of the CIM module. At step 802, the CIM module receives a connection request from the ICM. This connection request includes the destination address of the remote ITS Node. At step 804, the CIM proceeds to establish an Internet connection through the Internet to the CAM located at the remote ITS Node. At step 806, the CIM tests to see if the connection was successful. If the connection was successfully established, then the CIM transmits to the CAM a call initiation message indicating that a new call needs to be serviced. The call initiation message includes information such as any special configuration information indicating the communications protocol to be used, whether compression has been turned on, and if so, what type, whether echo cancellation has been turned on, and any other information needed to properly service the call. The call initiation message also includes the destination telephone number of the called party.

This section of Turock discloses that the call initiation module (CIM) module establishes an Internet connection to the connection acceptance module (CAM) located at a remote ITS node and sends a call initiation message indicating that a new call needs to be serviced. This section of Turock in no way discloses or suggests a routing component that comprises an address resolution logic and a network routing database implemented with a central processing unit, as required by claim 26.

For at least these additional reasons, Appellant submits that the rejection of claim 26

under 35 U.S.C. § 102(e) based on Turock is improper. Accordingly, Appellant requests that the rejection of claims 26 and 32 be reversed.

8. Claim 28.

Claim 28 depends from claim 1. Therefore, claim 28 is not anticipated by Turock for at least the reasons given above with respect to claim 1. Moreover, claim 28 recites an additional feature not disclosed or suggested by Turock.

Claim 28 recites that the originating gateway computer includes a component for providing out of band signaling between the originating gateway computer and the originating circuit-switched network. The Examiner does not address this feature in the final Office Action. Accordingly, a proper case of anticipation has not been established with respect to claim 28.

Nonetheless, Appellant submits that Turock does not disclose or suggest an originating gateway computer that includes a component for providing out of band signaling between the originating gateway computer and the originating circuit-switched network, as recited in claim 28, for at least reasons similar to reasons given above with respect to claim 1.

For at least these additional reasons, Appellant submits that the rejection of claim 28 under 35 U.S.C. § 102(e) based on Turock is improper. Accordingly, Appellant requests that the rejection be reversed.

9. Claim 36.

Claim 36 depends indirectly from claim 22. Therefore, claim 36 is not anticipated by Turock for at least the reasons given above with respect to claim 22. Moreover, claim 36 recites an additional feature not disclosed or suggested by Turock.

Claim 36 recites causing the terminating gateway computer to transmit to the originating

gateway computer, via the packet-switched network, a state change caused by the callee's answering the call. The Examiner does not address this feature in the final Office Action. Accordingly, a proper case of anticipation has not been established with respect to claim 36.

Nonetheless, Appellant submits that Turock does not disclose or suggest causing the terminating gateway computer to transmit to the originating gateway computer, via said packet-switched network, a state change caused by the callee's answering said call, as recited in claim 36. In fact, Turock does not disclose or suggest transmitting any state changes.

For at least these additional reasons, Appellant submits that the rejection of claim 36 under 35 U.S.C. § 102(e) based on Turock is improper. Accordingly, Appellant requests that the rejection be reversed.

10. Claim 37.

Claim 37 depends from claim 22. Therefore, claim 37 is not anticipated by Turock for at least the reasons given above with respect to claim 22. Moreover, claim 37 recites an additional feature not disclosed or suggested by Turock.

Claim 37 recites that a caller is associated with at least one dedicated address, and the method further comprises routing a call in accordance with a routing configuration from a telephone at said dedicated address to said originating gateway computer, passing said originating signals, the caller's address and a destination address to the originating gateway computer in accordance with said routing configuration, authorizing a call by checking account information of the caller through an internal data base of the originating gateway computer, resolving a routing to said gateway computer using the destination address, and causing the originating gateway computer to send a control message to the gateway computer along with said

dedicated address and said destination address. The Examiner does not address these features in the final Office Action. Accordingly, a proper case of anticipation has not been established with respect to claim 37.

Nonetheless, Appellant submits that Turock does not disclose or suggest that a caller is associated with at least one dedicated address, and the method further comprises routing a call in accordance with a routing configuration from a telephone at said dedicated address to said originating gateway computer, passing said originating signals, the caller's address and a destination address to the originating gateway computer in accordance with said routing configuration, authorizing a call by checking account information of the caller through an internal data base of the originating gateway computer, resolving a routing to said gateway computer using the destination address, and causing the originating gateway computer to send a control message to the gateway computer along with said dedicated address and said destination address, as recited in claim 37.

For at least these additional reasons, Appellant submits that the rejection of claim 37 under 35 U.S.C. § 102(e) based on Turock is improper. Accordingly, Appellant requests that the rejection be reversed.

11. Claim 38.

Independent claim 38 is directed to a method for establishing a call connection. The method includes receiving, at a first gateway device, a destination address of a called device from a calling device over a first circuit-switched network; transmitting, in response to receiving the destination address, a connection request from the first gateway device to a second gateway device over a packet-switched network, at least one of the first gateway device or the second

gateway device accepting out of band signaling; connecting, via the second gateway device, to the called device through a second circuit-switched network using the destination address; and establishing a call connection between the calling device and the called device through the first circuit-switched network, the packet-switched network, and the second circuit-switched network in response to the connecting. Turock does not disclose or suggest this combination of features.

For example, Turock does not disclose or suggest transmitting, in response to receiving the destination address, a connection request from the first gateway device to a second gateway device over a packet-switched network, where at least one of the first gateway device or the second gateway device accepts out of band signaling. The Examiner does not specifically address this feature in the final Office Action. Instead, the Examiner groups the rejection of claim 38 with the rejection of claim 1. Claim 1, however, does not recite transmitting, in response to receiving the destination address, a connection request from the first gateway device to a second gateway device over a packet-switched network, where at least one of the first gateway device or the second gateway device accepts out of band signaling. Accordingly, the Examiner has not established a proper case of anticipation with respect to claim 38.

Nonetheless, Turock does not disclose or suggest transmitting, in response to receiving the destination address, a connection request from the first gateway device to a second gateway device over a packet-switched network, where at least one of the first gateway device or the second gateway device accepts out of band signaling. With respect to claim 1, the Examiner relies on block 508 of Fig. 5, col. 2, lines 9-12, col. 6, lines 44-55, and col. 8, lines 57-60, of Turock for allegedly disclosing a terminating gateway computer that accepts out of band signaling (final Office Action, page 2). Appellant submits that these sections of Turock do not

disclose, or even suggest, transmitting, in response to receiving the destination address, a connection request from the first gateway device to a second gateway device over a packet-switched network, where at least one of the first gateway device or the second gateway device accepts out of band signaling, as recited in claim 38.

Block 508 in Turock's Fig. 5 corresponds to an Internet Call Manager. Turock discloses that Internet Call Manager 508 is used to process incoming calls from the Internet (col. 8, lines 42-46). Turock in no way discloses or suggests that Internet Call Manager 508 accepts out of band signaling, as required by claim 38.

At col. 2, lines 9-14, Turock discloses:

The transmission of digital signals over the T1 carrier may be accomplished using time division multiplexing (TDM) wherein a high bandwidth communications link, such as a 1.544 Mbit/S T1 carrier, is divided into a number of lower bandwidth communication channels, such as 64 Kbit/S channels.

This section of Turock merely describes the transmission of digital signals over a T1 carrier.

This section of Turock in no way discloses or suggests transmitting, in response to receiving the destination address, a connection request from the first gateway device to a second gateway device over a packet-switched network, where at least one of the first gateway device or the second gateway device accepts out of band signaling, as required by claim 38. Instead, the above section of Turock, which corresponds to Turock's Background of the Invention section, refers to the use of a T1 carrier between central offices.

At col. 6, lines 44-55, Turock discloses:

Specialized computer ITS node 206 prompts the user at the calling station 202 to provide the telephone number of the desired or called aty 204. Based on the telephone number of the called party 204, specialized computer ITS node 206 provides a communication link to the called party 204. This is accomplished by the specialized computer ITS node 206 initiating a series of signalling messages

over the Global Internet 214 using the TCP/IP protocol. While the specific embodiment of the present invention shown in FIG. 2 and discussed herein is described as using the Internet, it should be understood that the present invention may be used with any computer network in general.

This section of Turock discloses that specialized computer ITS node 206 provides a communication link over Internet 214 by initiating a series of signaling messages. This section of Turock in no way discloses or suggests a gateway device that accepts out of band signaling. Therefore, this section of Turock cannot disclose or suggest transmitting, in response to receiving the destination address, a connection request from the first gateway device to a second gateway device over a packet-switched network, where at least one of the first gateway device or the second gateway device accepts out of band signaling, as required by claim 38.

At col. 8, lines 57-60, Turock discloses:

The ICM utilizes the digital signal processing (DSP) of the Voice Resources module to sample the incoming voice data stream and convert it to messages or packets which are then transmitted over the Internet.

This section of Turock discloses the conversion of an incoming voice data stream to messages or packets for transmission over the Internet. This section of Turock in no way discloses or suggests a gateway device that accepts out of band signaling. Therefore, this section of Turock cannot disclose or suggest transmitting, in response to receiving the destination address, a connection request from the first gateway device to a second gateway device over a packet-switched network, where at least one of the first gateway device or the second gateway device accepts out of band signaling, as required by claim 38.

Further with respect to out of band signaling, the Examiner provides a definition for "out-of-band signaling" as a system that uses a separate communications channel or frequency outside the voice band for signaling (final Office Action, pg. 5). The Examiner does not provide any

indication from where this definition of "out-of-band signaling" has been obtained.

Nonetheless, with this definition in mind, the Examiner alleges that "Turock teaches the receiving out-of-band signaling at block 216 in Fig. 2 such as the T1 using the TDM to transmit (col. 6, lines 48-51, the bridge paragraph between col. 6-7). Turock uses the TDM to separate communications channel, therefore Turock teaches the system transmits out-of-band signaling" (final Office Action, pg. 5). Appellant respectfully disagrees with the Examiner's interpretation of Turock.

Block 216 in Fig. 2 of Turock corresponds to terminating specialized computer ITS node. Turock discloses that terminating specialized computer ITS node 216 receives signaling messages from Internet 214 and outdials a call through central office 218 (col. 7, lines 1-12). Turock in no way discloses or suggests that terminating specialized computer ITS node 216 accepts out of band signaling, as required by claim 38.

At col. 6, line 48, to col. 7, line 10, Turock discloses:

This is accomplished by the specialized computer ITS node 206 initiating a series of signalling messages over the Global Internet 214 using the TCP/IP protocol. While the specific embodiment of the present invention shown in FIG. 2 and discussed herein is described as using the Internet, it should be understood that the present invention may be used with any computer network in general. Additionally, specialized computer ITS node 206 can use either TCP/IP or UDP/IP to communicate voice data over the Internet. An advantage to using UDP/IP is that this protocol requires less transmission overhead resulting in faster data transmission. Due to the real-time nature of a telephone call, it is not worthwhile to attempt to redeliver messages initially returned as undeliverable. This is because subsequent messages continually flow and need to be delivered in order to maintain the real-time aspect and flow of the call. It is practically of no use to deliver message portions shifted in time.

The signalling messages are carried by the Internet 214 and delivered to a terminating specialized computer ITS node 216 at a remote access port. Terminating specialized computer ITS node 216 is identical to specialized computer 206, also referred to as the originating specialized computer ITS node,

except that the originating specialized computer ITS node 206 is used to transmit a call, while the terminating specialized computer ITS node 216 is used to receive a call. Both originating and terminating specialized computers ITS node 206 and 216, respectively, are equipped with transmission circuits and receiving circuits and are capable of handling calls in either direction.

This section of Turock discloses that specialized computer ITS node 206 initiates a series of messages over Internet 214, which are delivered to terminating specialized computer ITS node 216. Contrary to the Examiner's allegation, this section of Turock does not disclose or suggest that terminating specialized computer ITS node 216 accepts out of band signaling, as required by claim 38. Moreover, this section of Turock in no way discloses or suggests that terminating specialized computer ITS node 216 uses TDM to, as alleged by the Examiner, "separate communications channel."

The Examiner has not pointed to any section of Turock that discloses or suggests that terminating specialized computer ITS node 216 (or any other device) accepts out of band signaling, as required by claim 38. Therefore, Turock cannot disclose or suggest transmitting, in response to receiving the destination address, a connection request from the first gateway device to a second gateway device over a packet-switched network, where at least one of the first gateway device or the second gateway device accepts out of band signaling, as required by claim 38.

For at least the foregoing reasons, Appellant submits that the rejection of claim 38 under 35 U.S.C. § 102(e) based on Turock is improper. Accordingly, Appellant requests that the rejection be reversed

VIII. CONCLUSION

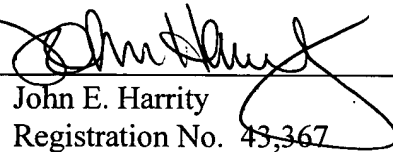
In view of the foregoing arguments, Appellants respectfully solicit the Honorable Board to reverse the Examiner's rejection of claims 1, 4-7, 9-11, 14-17, 19, 20, 22, 26-28, 31-33, and 35-38 under 35 U.S.C. § 102.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 13-2491 and please credit any excess fees to such deposit account.

Respectfully submitted,

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IX. CLAIM APPENDIX

1. A telecommunications system comprising:
 - an originating circuit-switched network for providing originating signals in response to voice input,
 - an originating gateway computer for converting said originating signals into digital data packets,
 - a terminating gateway computer that accepts out of band signaling and converts said digital data packets into terminating signals,
 - a terminating circuit-switched network for providing voice output in response to said terminating signals, and
 - a packet-switched network for transmitting said digital data packets from said originating gateway computer to said terminating gateway computer, at least one of said originating gateway computer or said terminating gateway computer comprising a component for routing said digital data packets through said packet-switched network from said originating gateway computer to said terminating gateway computer;
 - wherein said terminating circuit-switched network is capable of providing first return signals to said terminating gateway computer in response to return voice input,
 - wherein said terminating gateway computer comprises a component for converting said first return signals into return packets of return digital data,
 - wherein at least one of said originating gateway computer or said terminating gateway computer comprises a component for routing said return packets through said packet-switched network from said terminating gateway computer to said originating gateway computer,

and wherein said originating gateway computer comprises a component for converting said return packets into second return signals.

4. A telecommunications system according to claim 1, wherein said terminating gateway computer comprises a terminating buffer component for storing said digital packets prior to the conversion thereof into said terminating signals.

5. A telecommunications system according to claim 4, wherein said terminating gateway computer further comprises a component for rearranging said stored digital packets to maintain a proper packet order.

6. A telecommunications system according to claim 1, wherein said routing component provides said routing in response to dialed digits.

7. A telecommunication system according to claim 1, wherein said routing component provides said routing in response to spoken digits.

9. A telecommunications system according to claim 1, wherein said originating gateway computer comprises an originating buffer component for storing said return packets prior to conversion thereof into said second return signals.

10. A telecommunications system according to claim 9, wherein said originating gateway computer further comprises a component for rearranging said stored return packets to maintain a proper packet order.

11. A telecommunications system comprising:

- an originating gateway computer for providing digital packets corresponding to originating signals produced in response to voice input,
- a gateway computer that accepts out of band signaling and converts said digital packets into terminating signals,
- a circuit-switched network for providing voice output in response to said terminating signals, and
- a packet-switched network for transmitting said digital packets from said originating gateway computer to said gateway computer, at least one of said originating gateway computer or said gateway computer comprising a component for routing said digital packets through said packet-switched network from said originating gateway computer to said gateway computer;

wherein said circuit-switched network is capable of providing first return signals to said gateway computer,

wherein said gateway computer comprises a component for converting said first return signals into packets of return digital data,

wherein at least one of said originating gateway computer or said gateway computer comprises a component for routing said return packets through said packet-switched network from said gateway computer to said originating gateway computer,

and wherein said originating gateway computer comprises a component for converting said return packets into second return signals.

14. A telecommunications system according to claim 11, wherein said gateway computer comprises a buffer component for storing said digital packets prior to the conversion thereof into said terminating voice signals.

15. A telecommunications system according to claim 14, wherein said gateway computer further comprises a component for rearranging said stored digital packets to maintain a proper packet order.

16. A telecommunications system according to claim 11, wherein said routing component provides said routing in response to data received from said gateway computer.

17. A telecommunications system according to claim 11, wherein said routing component provides said routing in response to a typed input from a computer keyboard.

19. A telecommunications system according to claim 11, wherein said originating network comprises a buffer component for storing said return packets prior to conversion thereof

into said second return signals.

20. A telecommunications system according to claim 19, wherein said originating network further comprises a component for rearranging said stored return packets to maintain a proper packet order.

22. A telecommunications method comprising:
providing originating digital packets for transmission from an originating gateway computer, said originating digital packets corresponding to originating signals produced in response to originating voice input;

routing said originating digital packets from said originating gateway computer to a gateway computer, that accepts out of band signaling, through a packet-switched network via an originating routing component in at least one of said originating gateway computer or said gateway computer;

converting said originating digital packets into terminating signals for transmission from said gateway computer;

transmitting said terminating signals through a circuit-switched network for providing terminating voice output in response to said terminating signals;

providing first return signals to said gateway computer in response to return voice input into said circuit-switched network;

converting said return signals into return digital packets of return digital data for transmission from said gateway computer;

routing said return digital packets through said packet-switched network from said gateway computer to said originating gateway computer using said originating routing component or another routing component in said originating gateway computer or said gateway computer;

and converting said return digital packets into second return signals.

26. A telecommunications system according to claim 1, wherein at least one of said routing components comprises an address resolution logic and a network routing database implemented with a central processing unit.

27. A telecommunications system according to claim 1, wherein said originating gateway computer includes a component for providing a ring back tone or a busy tone to a telephone connected to said originating circuit-switched network.

28. A telecommunications system according to claim 1, wherein said originating gateway computer includes a component for providing out of band signalling between said originating gateway computer and said originating circuit-switched network.

31. A telecommunications system according to claim 1, wherein said originating circuit-switched network comprises at least one dedicated address for a caller, and a routing configuration from said dedicated address to said originating gateway computer, said routing configuration being such that a caller's address and a destination address are passed to said

originating gateway computer by the originating circuit-switched network and are routed to said terminating gateway computer by an originating routing component.

32. A telecommunications method according to claim 22, wherein said originating digital packets or said return digital packets or both said originating and return digital packets are routed using an address resolution logic and a network routing database implemented with a central processing unit.

33. A telecommunications method according to claim 22, further comprising providing a ring back or busy tone to a telephone connected to said originating gateway computer through an originating network in response to signaling from a component of said originating gateway computer.

35. A telecommunications method according to claim 22, wherein said gateway computer is a terminating gateway computer, and wherein said method further comprises:

providing a caller's address and a callee's address to said originating gateway computer,

authorizing a call between the caller and the callee using the caller's address,
using the callee's address for said routing of the originating digital packets from the originating gateway computer to the terminating gateway computer,

causing the terminating gateway computer to dial out to the callee through said circuit switched network using the callee's address,

and causing the originating gateway computer to provide a return tone for advising the caller of a status of the call.

36. A telecommunications method according to claim 35 comprising the further step of causing the terminating gateway computer to transmit to the originating gateway computer via said packet-switched network a state change caused by the callee's answering said call.

37. A telecommunications method according to claim 22, wherein a caller is associated with at least one dedicated address, and wherein said method further comprises:

routing a call in accordance with a routing configuration from a telephone at said dedicated address to said originating gateway computer,

passing said originating signals, the caller's address and a destination address to the originating gateway computer in accordance with said routing configuration,

authorizing a call by checking account information of the caller through an internal data base of the originating gateway computer,

resolving a routing to said gateway computer using the destination address, and

causing the originating gateway computer to send a control message to the gateway computer along with said dedicated address and said destination address.

38. A method for establishing a call connection, the method comprising:

receiving, at a first gateway device, a destination address of a called device from a calling device over a first circuit-switched network;

transmitting, in response to receiving the destination address, a connection request from the first gateway device to a second gateway device over a packet-switched network, at least one of the first gateway device or the second gateway device accepting out of band signaling;

connecting, via the second gateway device, to the called device through a second circuit-switched network using the destination address; and

establishing a call connection between the calling device and the called device through the first circuit-switched network, the packet-switched network, and the second circuit-switched network in response to the connecting.

X. EVIDENCE APPENDIX

None.

XI. RELATED PROCEEDINGS APPENDIX

None.